

Project 2: Analyzing Art Data

Option 2: Storytelling with Data

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Visualization Information

Overview

Mohammad & Kiritchenko's experiment was a study created to demonstrate different emotions and perspectives on pieces of art. In order to create and tell a story of this data and its results our group created four graphs that best compare and contrast different viewpoints of the art; To visualize different themes in the dataset, the four graphs we created are the following: Avg. Rating of Art, Overall Positive vs. Overall negative Emotions, Optimism vs. Pessimism, and Love vs. Fear.

Data Preprocessing

Our data preprocessing consisted of formatting/condensing the data to be most suitable for our project goals and objectives. The first change that we made to the dataset is that we cut out categories that were combinations of multiple categories in order to only look at the categories individual. Along with this step, we also calculated different averages based on specific categories in order to use these averages as metrics in some of our graphs.

Design

By conducting the data preprocessing described above, this allowed our group to study/examine the dataset thoroughly to identify different patterns/trends that could then be transformed into different themes in the actual design process which is described below.

Design Process

Designing

Before diving into any coding or actual creations of the visualizations, our group first wanted to conceptually identify all graphs that we were going to create. We identified the different themes that wanted to represent along with how we would connect all of the themes while still maintaining different visualizations. A key aspect of this process was also ensuring that all of the requirements would be met in the building process, (quantitative data, categorical data, meaningful comparisons, and text). We wanted to ensure that each graph would meet most if not all of these requirements prior to the actual creation of the visualizations.

Building

The building process for our project consisted of using Tableau to create our graphs. All four of our graphs were created using Tableau as we wanted to maintain a consistent/coherent look with all of our graphs. We chose to use Tableau as it allowed us to create unique visualizations, in comparison to Excel for example, but not visualizations that were so advanced where it would be too difficult to complete four in the time frame allotted. Along with creating the visualizations, our website was created using html and css. By completing the graphs before creating the website, we ensured that the website would properly display/fit the graphs created along with the descriptions attached to each visualization.

Refining

The refining process for this project was much smoother than our previous project as for this assignment we did extensive planning/preparation before beginning any actual coding or visualization creations. By planning out our project extensively in advance, our refining process consisted mostly of making minor changes to make the visualizations and website look cleaner and more visually appealing, (for example: color changes, font changes, spacing changes on the website, etc.).

Reasoning for Choosing Our Representations

For our project we chose the representations listed above, (Optimism vs. Pessimism, Avg. Rating of Art, Love vs. Fear, and Overall Positive vs. Overall negative Emotions) as we felt that these four different visualizations would create and tell the best story of the data. With the purpose of Mohammad & Kiritchenko's experiment being to focus on emotions and preferences, we chose to create graphs that best encompass a viewer's feelings, whether they be positive or negative. By focusing on opposite ends of the spectrum, (Optimism vs. Pessimism for example) we can see the overall perspective of a viewer in relation to different pieces of art. As users go through the webpage, they start with broad insights about artistic movements (such as overall ranking) and see more specific information about individual emotional comparisons.

Additional Elements (Above and Beyond)

While our project showcases one scatterplot and one bar chart, our group also encompassed unusual/unique representations by displaying a line graph and a bubble graph. By having a different type of graph for each visualization, our website is visually appealing as well as complexly represented. Visually, our website is very appealing as it is correctly formatted and consistent in terms of fonts, headers, graph placement etc. In terms of the actual visualizations

themselves, even though there are four different types of graphs, (scatterplot, bar chart, line graph, bubble graph) they all are cohesively represented in terms of labels, bright colors, and unique shapes/designs.

While each of our graphs can independently stand on their own, they all can become connected to tell a unique story about a viewer's perspective on different pieces of art and how this correlates to their emotional connection to a piece. By focusing on themes such as optimism vs. pessimism, love vs. fear, and positivity vs. negativity these themes can be analyzed to create an overall picture of how different individuals view a piece of art.

Team Roles

Elise Bergmann

This group member was responsible for creating the visualization, "Avg. Rating of Art". Not only did she thoroughly examine the dataset to deduce the creative theme for this visualization but she also executed the actual creation of the visualization in Tableau. In addition, she contributed towards the written description of her visualization. Aside from creating this visualization, her primary role was organizing and coordinating the different visualizations that would be created in the project. She ensured that all four requirements for the visualizations would be met by collaborating with the group early on to assign different responsibilities.

Savannah Bornstein

This group member was responsible for many written portions of the assignment and ensuring that all write up sections sounded cohesive in relation with the summaries of each visualization that are found on the website. She wrote numerous parts of the written portion of the project which includes the following sections: Visualization Information (Overview, Data Preprocessing, Design), Design Process (Designing, Building, Refining, Reasoning), Additional Elements (Unusual Representations, Style, Interesting Tasks, Perceptually-Informed Design, Integrate Imagery Coordinated Views), and Team Roles.

Talia Colancia

This group member was responsible for the creation of the website that displays our group's four graphs as well as the written description of her visualization. She used html and css to write the code that not only created the website but also was very visually appealing in terms of its layout, headers, and fonts selected. She was also responsible for creating the visualization, "Optimism vs. Pessimism". Not only did she thoroughly examine the dataset to deduce the creative theme for this visualization but she also executed the actual creation of the visualization in Tableau. She also contributed towards the written description of her visualization.

Joshua Paup

This group member was responsible for editing the HTML file in such a way that it could be organized to have a dedicated driver file inside GitHub. He was also responsible for including all of the details that were necessary for the actual website as well; this encompassed responsibilities such as: importing photos, creating additional pages for team contribution and project details. He was the primary member responsible for managing our project in GitHub and ensuring that all necessary files were present and allocated in their correct place.

Conner Sinjem

This group member was responsible for creating the visualization, “Overall Positive and Negative Emotions in Artistic Movement”. Not only did he thoroughly examine the dataset to deduce the creative theme for this visualization but he also executed the actual creation of the visualization in Tableau. He also contributed towards the written description of his visualization. In addition to creating this visualization, this group member also was responsible for creating the visualization, “Love vs. Fear”. Similarly to the first graph he was responsible for, he also innovated the idea for this visualization’s theme along with using Tableau to actually create the visualization.